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NOTES ON THE LIGNEOUS PLANTS DESCRIBED BY  
LEVEILLE FROM EASTERN ASIA<sup>1</sup>

ALFRED REHDER

CELASTRACEAE (Supplement)

***Tripterygium hypoglaucum*** (Lévl.) Hutchinson in Kew Bull. Misc. Inform. 1917, p. 101. — Léveillé, China Rev. Ann. 1916, p. 23 (Msc.). — Loesener in Ber. Deutsch. Bot. Ges. LA, p. 10 (1932).

Add as synonym:

*Microrhamnus Franchetiana* Léveillé in Bull. Géogr. Bot. xxv. 26 (1915), excl. descript. fructus; Cat. Pl. Yun-Nan 227 (1917). —

**Synon. nov.**

CHINA. K w e i c h o u : Brousses des montagnes à Siao-ou-long, 2600 m., *E. E. Maire*, June 1912, "arbuste grimpant à long rameaux, fl. blanches" (holotype of *Microrhamnus Franchetiana*, excl. fruiting branch; photo. and merotype in A. A.).

In revising Léveillé's Rhamnaceae I found that his *Microrhamnus Franchetiana* belongs only partly to the Rhamnaceae, while the flowering branch upon which the description chiefly is based, is to be referred to *Tripterygium hypoglaucum*. The leafless fruiting branch represents *Berchemia Giraldiviana* Schneid.

STAPHYLEACEAE

***Staphylea holocarpa*** Hemsley in Kew Bull. Misc. Inform. 1895, p. 15. — Léveillé, Cat. Pl. Yun-Nan, 267 (1917).

*Xanthoceras enkianthiflora* Léveillé in Fedde, Rep. Spec. Nov. XII. 534 (1913); Fl. Kouy-Tchéou, 384 (1915) "Zanthoceras." —

**Synon. nov.**

*Tecoma Cavaleriei* Léveillé, Fl. Kouy-Tchéou, 50 (1914). —

**Synon. nov.**

<sup>1</sup>Continued from Vol. XIV. 252; for preceding parts see Vol. X. 108-132, 184-196; Vol. XII. 275-281, and Vol. XIII. 299-332.

CHINA. K w e i c h o u : Tou-chan, *E. Bodinier*, April 1900 (ex Léveillé; holotype of *Xanthoceras enkianthiflora*); Gan-chouen, *J. Cavalerie*, no. 3913, April 1912 (sub *Zanthoceras enkianthiflora* in Fl. Kouy-Tchéou, l. c.; duplicate in A. A.); nord de Gan-chouen, *J. Cavalerie*, no. 3913, May 1912 (holotype of *Tecoma Cavaleriei*; merotype in A. A.).

The type of *Xanthoceras enkianthiflora* is missing from the Léveillé herbarium, but I have before me the additional specimen cited in Flore de Kouy-Tchéou and an unnumbered specimen collected by Cavalerie with a label not in Léveillé's handwriting, giving a different locality but the same date. The flowers, however, instead of being 3-4 times larger than *Xanthoceras sorbifolia* as stated in Léveillé's description, are really smaller, and I cannot reconcile this part of the description with the specimens before me. The type of *Tecoma Cavaleriei* is in fruit and Léveillé apparently took the thin capsule, splitting at the apex into several lobes, for a flower.

**Euscaphis japonica** (Thbg.) Dippel, Laubholzk. 480 (1892).

*Evodia Chaffanjonii* Léveillé in Fedde, Rep. Spec. Nov. XIII. 265 (1914); Fl. Kouy-Tchéou, 375 (1915). — **Synon. nov.**

*Euscaphis staphyleoides* Siebold & Zuccarini, Fl. Jap. I. 125, t. 67 (1835). — Léveillé, Cat. Pl. Yun-Nan, 267 (1917).

CHINA. K w e i c h o u : environs de Kouy-yang, mont du Collège, *J. Chaffanjon* in herb. *Bodinier*, no. 2263, April 15, 1898 (holotype of *Evodia Chaffanjonii*; merotype in A. A.).

#### ICACINACEAE

**Iodes ovalis** Blume, Bijdr. 30 (1825). — Baillon in De Candolle, Prodr. XVII. 22 (1873).

*Iodes vitiginea* (Hce.) Hemsley in Jour. Linn. Soc. XXIII. 115 (1886).

*Vitis chrysobotrys* Léveillé & Vaniot in Fedde, Rep. Spec. Nov. III. 350 (1907). — **Synon. nov.**

*Vitis Seguini* Léveillé, Fl. Kouy-Tchéou, 28 (1914), pro parte, quoad Esquirol, nos. 508 and 868; non Léveillé (1907).

*Sabia edulis* Léveillé, Fl. Kouy-Tchéou, 379 (1915), nomen; pro parte, quoad Cavalerie, nos. 2033, 3904. — **Synon. nov.**

*Hernandia sinensis* Léveillé, Fl. Kouy-Tchéou, 379 (1915), pro synonym. *Sabia edulis*.

CHINA. K w e i c h o u : without precise locality, *J. Esquirol*, no. 508, June 1905, "fleurs verdâtres" (holotype of *Vitis chrysobotrys*; photo. in A. A.); près fleuve Houa-kiang, *J. Cavalerie*, no. 2033, June 6, 1904 (syntype of *Sabia edulis*; photo. in A. A.); without precise locality, *J. Cavalerie*, no. 3904, in 1912 (syntype of *Sabia edulis*; photo.

in A. A.); without precise locality, *J. Esquirol*, no. 868 (sub "*Sabia edulis* [*Vitis chrysobotrys* Lévl. & Vant.]" in herb. Lévillé; sub *Vitis Seguini* in Fl. Kouy-Tchéou; dupl. in A. A.).

*Sabia edulis* was published as "comb. nov." without description, only with the citation *Hernandia sinensis* Lévl. as a synonym, but that name is only a manuscript name and appears on the sheet of Cavalerie's no. 2033 with a Latin description and a pencil-note in Lévillé's handwriting "non publ." The name *Sabia edulis* is not found on this sheet nor on the sheets of the other two numbers. *Vitis chrysobotrys* is referred by Lévillé to *Vitis Seguini* as a synonym in his Flore de Kouy-Tchéou (p. 28), but in his herbarium it is given under Esquirol, no. 868, as a synonym of *Sabia edulis*.

I am unable to separate *I. vitiginea* clearly from *I. ovalis* Bl. which is apparently a very variable species of wide distribution. By Gagnepain (in Lecomte, Fl. Gén. Indochine, I. 845. 1911) *I. vitiginea* is made a variety of *I. ovalis*, but the distinguishing characters given—plant less pubescent, leaves very pale beneath—do not seem to distinguish the plant from the type which is described by Baillon (l. c.), as with "foliis . . . parce villosis" in contrast to the tomentose var. *Miquelii*. I have seen no spontaneous specimen from Java except one from a plant cultivated in Buitenzorg (Hochreutiner, Pl. Bcgor. Exsicc. no. 27) which seems referable to var. *Miquelii*. I prefer, therefore, for the present to accept *I. ovalis* Bl. in the wide sense of most modern authors.

As the author of *I. vitiginea* usually Hance is cited, but he did not publish the combination. In 1873 (Jour. Bot. XI. 266) he described *Erythrostaphyle vitiginea* as a new genus and new species of Verbenaceae. In the following year he published a note (Jour. Bot. XII. 184) saying that Professor Oliver had pointed out to him that the plant described under the above name is a species of *Iodes* closely allied to the Sumatran *I. tomentella* Miq. Hance did not make a new combination and leaves us in doubt, whether he considered it referable to *I. tomentella* or a new species. Hemsley seems to have been the first to publish the combination *I. vitiginea* crediting it to Hance; it does not appear in Index Kewensis except as a reference from *Erythrostaphyle vitiginea*, but under *Iodes* there is no *I. vitiginea*.

***Iodes Seguini* (Lévl.), comb. nov.**

*Vitis Seguini* Lévillé in Fedde, Rep. Spec. Nov. IV. 331 (1907); Fl. Kouy-Tchéou, 28 (1914), pro parte, synonym. et specimenibus Esquirolii exclusis.

*Sabia edulis* Lévillé, Fl. Kouy-Tchéou, 379 (1915) pro parte, quoad specim. Cavalerie, no. 3932. — **Synon. nov.**

*Iodes rugosa* Gagnepain in Lecomte, Not. Syst. 1. 201 (1910). — Léveillé, Fl. Kouy-Tchéou, 291 (1914). — **Synon. nov.**

*Iodes vitiginea* var. *levitestis* Handel-Mazzetti in Anz. Akad. Wiss. Wien, 1921, p. 149 (Pl. Nov. Sin. Forts. 12, p. 6) (1921). — **Synon. nov.**

CHINA. K w e i c h o u : environs de Hoang-ko-chan, rocailles de la cascade, *J. Seguin* in herb. *Bodinier*, no. 2614, March 29, 1899, "liane s'attachant aux rochers comme un lierre" (holotype of *Vitis Seguini* [Hb. Léveillé; photo. in A. A.] and of *Iodes rugosa* [Hb. Paris]; route de Tchen-fong à Hin-y-fou, rochers, *J. Cavalerie*, no. 3932, June 1912, "liane aux fruits roses mangeables"; (syntype of *Sabia edulis*; photo. in A. A.); ad viam Tschenning—Huang-tsauba in convalle flum. Hoadjiau-ho infra vicum Tingdaoyin, *Handel-Mazzetti*, no. 10374, June 20, 1917, "fr. rubri, sapore dulci sed paululum amygdalos amarus admonente" (syntype of *I. vitiginea* var. *levitestis*; isotype in A. A.).

*Vitis Seguini* and *Iodes rugosa* are based on duplicates of the same collection, but Léveillé cites "Seguin, no. 2614" while Gagnepain cites "no. 2614 (Bodinier)," and in his Flore de Kouy-Tchéou Léveillé enumerates both species and cites the same number with different collectors under each. Cavalerie no. 3932 agrees with *I. Seguini*, but the leaves are not deeply cordate and not as strongly veined though distinctly reticulate above which distinguishes them from *I. ovalis*. Handel-Mazzetti's no. 10374 is similar, but the stems are only sparingly verruculose and the leaves are as in Cavalerie's specimen rounded or subcordate at base, not deeply cordate as in the type of *I. Seguini*. The fruits of both specimens are identical and are described as edible and rose-colored or red; they are oblong, 1.8-2 cm. long and about 12 mm. wide, the putamen with a thin and smooth testa. All the specimens cited above agree in the more or less verruculose branches, in the leaves being more strongly veined and reticulate above and in the short inflorescence branched near or at the base, characters by which this species can be readily distinguished from *I. ovalis*.

#### ACERACEAE

**Dipteronia sinensis** Oliver in Hooker, Ic. Pl. xxix. t. 1898 (1889).

*Acer Dielsii* Léveillé in Fedde, Rep. Spec. Nov. x. 432 (1912); Fl. Kouy-Tchéou, 383 (1915). — **Synon. nov.**

CHINA. K w e i c h o u : Pin-fa, *J. Cavalerie*, no. 1097, June 1903 (holotype of *Acer Dielsii*; fragments in A. A.).

**Acer Miyabei** Maximowicz in Bull. Acad. Sci. St. Pétersb. xxxii. 485 (1888); in Mél. Biol. xii. 725 (1888). — Koidzumi in Jour. Coll. Sci. Tokyo, xxxii, art. 1, p. 57, t. 31 (1911).

*Acer Hayatae* Léveillé & Vaniot in Bull. Soc. Bot. France, LIII. 590 (1906).

JAPAN. H o k k a i d o : near Nanai, *U. Faurie*, no. 6086, June 1904 (holotype; photo. and isotype in A. A.).

*Acer Hayatae* has already been identified with *A. Miyabei* by Koidzumi (l. c.).

***Acer pictum*** Thunberg, Fl. Jap. 161 (1784).

*Acer Hayatae* var. *glabra* Léveillé & Vaniot in Bull. Soc. Bot. France, LIII. 590 (1906). — **Synon. nov.**

JAPAN. H o n d o : near Aomori, *U. Faurie*, no. 5020; May 20, 1902 (holotype; photo. in A. A.).

***Acer pictum*** f. *tricuspis* Rehder in Mitteil. Deutsch. Dendr. Ges. XXII. 258 (1913).

*Acer Bodinieri* Léveillé in Fedde, Rep. Spec. Nov. x. 433 (1912); Fl. Kouy-Tchéou, 382 (1915). — **Synon. nov.**

CHINA. K w e i c h o u : Tsin-gay, Kao-po, *J. Cavalerie*, no. 1162, July 1903 (holotype; photo. in A. A.).

The specimen differs from the type of this form in the larger leaves with rounded base and in the wings of the fruit spreading at a right or even acute angle; in the rounded base of the leaves it comes near Harry Smith, no. 6551, from Shansi, but that plant has much smaller leaves and wings spreading at a wide angle. In shape the leaves resemble those of *A. Wilsoni* Rehd., but this has a paniculate inflorescence and 3-nerved leaves with different venation.

***Acer caudatum*** Wall. var. *ukurunduense* (Maxim.) Rehder in Sargent, Trees & Shrubs, I. 164, t. 82 (1905); II. 26 (1907).

*Acer lasiocarpum* Léveillé & Vaniot in Bull. Soc. Bot. France, LIII. 591 (1906).

*Acer spicatum* Lam. var. *ukurunduense* Maximowicz, in Mém. Div. Sav. Acad. Sci. St. Pétersb. IX. 65 (Prim. Fl. Amur.) (1859). — Koidzumi in Jour. Coll. Sci. Tokyo, XXXII. art. 1, p. 31 (1911).

JAPAN. H o n d o : in sylvis Takayu, *U. Faurie*, no. 6102, June 1904 (syntype of *A. lasiocarpum*; isotype in A. A.); in Jizogatake, *U. Faurie*, no. 5467, July 1903 (syntype of *A. lasiocarpum*; photo. in A. A.); in Hakkoda, *U. Faurie*, no. 6100, Aug. 1904 (syntype of *A. lasiocarpum*; isotype in A. A.); in sylvis Ochiai, *U. Faurie*, no. 6101, Sept. 1904 (syntype of *A. lasiocarpum*; isotype in A. A.).

*Acer lasiocarpum* was first identified with *A. caudatum* var. *ukurunduense* by the writer (op. cit. II. 26).

***Acer oblongum*** Wallich apud De Candolle, Prodr. I. 593 (1824).

*Acer Paxii* Franch. var. *integrifolia* Léveillé, Fl. Kouy-Tchéou, 383 (1915), nomen. — **Synon. nov.**

CHINA. K w e i c h o u : route de Pin-yue à Kouy-yang, *L. Martin* in hb. *Bodinier*, no. 2618, May 18, 1899, "arbre" (holotype of *A. Paxii* var. *integrifolia*; photo. in A. A.).

I have not been able to find an earlier publication of Lévillé's name except that in *Flore de Kouy-Tchéou* where it appears as a nomen nudum.

***Acer oblongum* var. *biauratum*** W. W. Smith in *Notes Bot. Gard. Edinb.* VIII. 329 (1915). — Metcalf in *Lingnan Sci. Jour.* XI. 195 (1932).

*Acer oblongum* var. *erythrocarpum* Lévillé, *Cat. Pl. Yun-Nan*, 252 (1917).

CHINA. Y u n n a n : valleys in the mountains of the Chungtien plateau, alt. 10000 ft., *G. Forrest*, no. 10644, July 1913 (holotype of *A. oblongum* var. *biauratum*; isotype in A. A.); brousse de Mahong, alt. 2800 m., *E. E. Maire*, May [1910-12], "petite arbre, fruit rougeâtre" (holotype of *A. oblongum* var. *erythrocarpum*; merotype in A. A.).

The type of *A. oblongum* var. *biauratum* has mature fruits of light grayish yellow color, while the young fruits of Maire's specimen are purplish and so are the fruits of Simeon Ten, no. 471, the only other specimen with young fruits in this herbarium.

***Acer coriaceifolium*** Lévillé in *Fedde, Rep. Spec. Nov.* x. 433 (1912); *Fl. Kouy-Tchéou*, 383 (1915); "*coriaceifolia*" — Metcalf in *Lingnan Sci. Jour.* XI. 198 (1932).

CHINA. K w e i c h o u : Pin-fa, bois, *J. Cavalerie*, no. 3100, July 2, 1907 (holotype; merotype in A. A.).

By Fang (in *Contrib. Biol. Lab. Sci. Soc. China*, VII. 167, 1932) the species was referred as a synonym to *A. oblongum* Wall., but it is easily distinguished by the green tomentulose under side of the oblong-lanceolate leaves. It is, as Metcalf points out more closely related to *A. lanceolatum* Molliard than to *A. oblongum*.

***Acer Fabri*** Hance var. ***rubrocarpum*** Metcalf in *Lingnan Sci. Jour.* XI. 206 (1932).

*Acer Fargesii* Franchet apud Rehder in *Sargent, Trees & Shrubs*, I. 180 (1905).

*Acer Prainii* Lévillé in *Fedde, Rep. Spec. Nov.* x. 432 (1912).

CHINA. K w e i c h o u : Pin-fa, *J. Cavalerie*, nos. 951, March 1903, and 1048, June 3, 1903 (two syntypes of *A. Prainii*; dupl. and photo. of no. 951 and photo. of no. 1048 in A. A.); Ma-jo, *J. Cavalerie*, July 1903 (ex Lévillé; syntype of *A. Prainii*).

After having seen a fragment of Hance's type of *A. Fabri* I am con-

vinced that it does not belong to *A. laevigatum* Wall. where I had placed it formerly (in Sargent, Trees & Shrubs, 1. 180), but that it is conspecific with *A. Fargesii* which represents a red-fruited form of it. *Acer Fargesii* was based by the writer exclusively on red-fruited or red-flowered specimens; of the Farges specimens named by Franchet *A. Fargesii* in herb. the writer saw and cited only a flowering specimen with the flowers and young leaves deep red which obviously belongs to the red-fruited form; the specimen with whitish fruits also named *A. Fargesii* by Franchet was not cited and did not enter in the description, therefore *A. Fargesii* must be considered a red-fruited form of *A. Fabri* and becomes a synonym of *A. Fabri* var. *rubrocarpum* and need not be cited in part under the type. *Acer Prainii* was first identified with *A. Fabri* var. *rubrocarpum* by Metcalf.

**Acer Davidi** Franchet in Nouv. Arch. Mus. Paris, sér. 2, VIII. 212 (Pl. David. II. 30) (1884). — Léveillé, Cat. Pl. Yun-Nan, 252 (1917). — Fang in Contrib. Biol. Lab. Sci. Soc. China, VII. 174 (1932). — Rehder in Jour. Arnold Arb. XIV. 213 (1933).

*Acer Cavaleriei* Léveillé in Fedde, Rep. Spec. Nov. x. 432 (1911); Fl. Kouy-Tchéou, 383 (1915).

CHINA. K w e i c h o u : Ma-jo, J. Cavalerie, no. 3345, Sept. 1908 (holotype of *A. Cavaleriei*; merotype in A. A.).

*Acer Cavaleriei* was first identified with *A. Davidi* by Fang (l. c.).

**Acer crataegifolium** Siebold & Zuccarini in Abh. Akad. Muench. IV. pt. II. 155 (Fl. Jap. Fam. Nat. I. 47) (1845). — Koidzumi in Jour. Coll. Sci. Tokyo, XXXII. art. 1, p. 13 (1911).

*Acer cucullobracteatum* Léveillé in Bull. Soc. Bot. France, LIII. 590 (1906).

JAPAN. H o n d o : in sylvis Hayachine, *U. Faurie*, no. 6732, June 5, 1905 (holotype of *A. cucullobracteatum*; photo. in A. A.).

*Acer cucullobracteatum* was first identified with *A. crataegifolium* by Koidzumi (l. c.). *Acer crataegifolius* [sic] as enumerated by Léveillé in his Flore de Kouy-tchéou (p. 383) and in his Catalogue des plantes de Yun-Nan (p. 252) refers probably to *A. Davidi* of which specimens were found in Herb. Léveillé in the cover of *A. crataegifolium*.

**Acer Tschonoskii** Maximowicz in Bull. Acad. Sci. St. Pétersb. XXXI. 24 (1886); in Mém. Biol. XII. 432 (1886). — Rehder in Sargent, Trees & Shrubs, II. 26 (1907). — Koidzumi in Jour. Coll. Sci. Tokyo, XXXII. art. 1, p. 24 (1911).

*Acer pellucidobracteatum* Léveillé & Vaniot in Bull. Soc. Bot. France, LIII. 592 (1906).

JAPAN. H o k k a i d o : in alpebus Tokachi, 1500 m., in lacunis

secus nives, *U. Faurie*, no. 6729, July 1905 (holotype; isotype in A. A.).

*Acer pellucidobracteatum* was first identified with *A. Tschonoskii* by the writer (l. c.).

**Acer argutum** Maximowicz in Bull. Acad. Sci. St. Pétersb. XII. 226 (1867); in Mél. Biol. VI. 368 (1867).

*Acer palmatum* var. *plicatum* Léveillé in Bull. Soc. Bot. France, LIII. 592 (1906). — **Synon. nov.**

JAPAN. H o n d o : in alpibus Nikko, *U. Faurie*, no. 2309, May 27, 1898 (holotype of *A. palmatum* var. *plicatum*; photo. in A. A.).

The specimen of *A. palmatum* var. *plicatum* in the Léveillé herbarium which consists of a small branch with pistillate flowers does not bear on the label the name given by Léveillé.

**Acer Negundo** Linnaeus, Spec. Pl. 1056 (1753). — Rehder in Sargent, Trees & Shrubs, II. 26 (1907).

*Acer Fauriei* Léveillé in Bull. Soc. Bot. France, LIII. 590 (1906).

JAPAN. H o k k a i d o : Sapparo, dans le jardin de M. Miyabe, *U. Faurie*, no. 6084 bis, July 1905 (holotype of *A. Fauriei*; photo. in A. A.).

The same species is represented in this herbarium by a specimen of Faurie's no. 6084, collected September 1904 in "Yezo in hortis culta." *Acer Fauriei* was first identified with *A. Negundo* by the writer (l. c.).

#### SAPINDACEAE

##### **Eurycorymbus Cavaleriei** Rehder & Handel-Mazzetti.<sup>1</sup>

*Rhus Cavaleriei* Léveillé in Fedde, Rep. Spec. Nov. x. 474 (1912); Fl. Kouy-Tchéou, 411 (1915).

*Eurycorymbus austrosinensis* Handel-Mazzetti in Anz. Akad. Wiss. Wien, 1922, p. 104 (Pl. Nov. Sin. Forts. 16, p. 4) (1922).

CHINA. K w e i c h o u : Pin-fa, *J. Cavalerie*, no. 1094, June 23, 1903, "petit arbre; il nourrit des insectes de couleur vermillon" (holotype of *Rhus Cavaleriei*; photo. and fragments in A. A.); inter urbes Kutschou and Liping in fruticetis prope vicum Tsaimou, alt. 600 m., *H. Handel-Mazzetti*, no. 10907, July 21, 1917 (syntype of *Eurycorymbus austrosinensis*; isotype in A. A.).

*Rhus Cavaleriei* was first identified with *Eurycorymbus austrosinensis* by the writer. The species, though apparently rare, has a wide distribution having been found also in Kwangtung, on the Lungtoushan, 60 km. east of Siudsao by R. Mell (Pl. Mell. no. 17) and in Formosa, on the river Shin-chou, prov. Karenko by E. H. Wilson, (no. 11098) and

<sup>1</sup>This combination is being published almost simultaneously by Handel-Mazzetti in a continuation of his *Plantae Mellianae* which probably will appear before the present paper is out.



by R. Kanehira (no. 14225), the latter specimen with staminate flowers which apparently have not yet been described. They are small, about 4 mm. across, whitish; sepals 5, ovate to oblong-ovate, 1-1.5 mm. long, denticulate, outside like the pedicels densely appressed-pubescent, less so inside; petals 5, oblong-lanceolate about 2 mm. long, unguiculate, villous-pubescent outside and ciliate; disk shallowly cupuliform, with short rounded lobes; stamens 8, nearly twice as long as petals; filaments glabrous, folded twice in bud; rudimentary ovary minute, pubescent.

## SABIACEAE

**Sabia gracilis** Hemsley in Hooker's Icon. xxix. t. 2831 (1907).

*Sabia Dunnii* Léveillé in Fedde, Rep. Spec. Nov. ix. 457 (1911); Fl. Kouy-Tchéou, 379 (1915). — **Synon. nov.**

CHINA. K w e i c h o u : Pin-fa, *J. Cavalerie*, no. 21bis, April 4, 1902, "fleurs vertes-jaunes" (holotype of *S. Dunnii*; merotype in A. A.).

**Sabia yunnanensis** Franchet in Bull. Soc. Bot. France, xxxiii. 465 (1886). — Loesener in Ber. Deutsch. Bot. Ges. xxxii. 543 (1914). — Léveillé, Cat. Pl. Yun-Nan, 250 (1917).

*Celastrus Mairei* Léveillé in Fedde, Rep. Spec. Nov. xiii. 264 (1914).

CHINA. Y u n n a n : broussailles de Lou-ké-suin, alt. 3000 m., *E. E. Maire*, Apr. 1911, "arbuste grimpant tout-vert, fl. vertes, lèvre inféri. noire" (syntype of *Celastrus Mairei*; photo. in A. A.); brousse des mont. derrière Tong-tchouan, alt. 2600 m., *E. E. Maire*, May 1911, "arbuste grimpant, feuilles caduques, fl. vertes" (syntype of *C. Mairei*; photo. in A. A.).

*Celastrus Mairei* was according to Loesener, l. c., first identified with *Sabia yunnanensis* by L. Diels.

**Sabia Dielsii** Léveillé in Fedde, Rep. Spec. Nov. ix. 456 (1911); Fl. Kouy-Tchéou, 379 (1915).

*Sabia puberula* Rehder & Wilson in Sargent, Pl. Wilson. ii. 197 (1914). — Chung in Mem. Sci. Soc. China, i. 153 (Cat. Trees Shrubs China) (1924). — **Synon. nov.**

CHINA. K w e i c h o u : Pin-fa, grande grotte, *J. Cavalerie*, no. 1008, May 14, 1903, "h. 1 m., fl. vertes-jaunes" (syntype of *S. Dielsii*; photo in A. A.); without locality, *J. Esquirol*, no. 474, June 1905, "arbrisseau" (syntype of *S. Dielsii*; merotype in A. A.). H u p e h : Hsing-shan Hsien and Fang Hsien, *E. H. Wilson*, no. 2534a and b (syntypes of *Sabia puberula* in A. A.).

The species was collected in Kweichou also by Y. Tsiang (no. 4630) in 1930 near Cheng-feng.

**Sabia parviflora** Wallich in Roxburgh, Fl. Ind., ed. Carey, II. 310 (1824). — Lévillé, Fl. Kouy-Tchéou, 379 (1915).

CHINA. K w e i c h o u : Lo-fou, *J. Cavalerie*, no. 3415, Aug. 1909; route de Mou-you-se à Kouan-lin, *J. Cavalerie*, no. 3919, July 25, 1912, "arbuste, fl. vertes" (photo. in A. A.).

Both specimens cited are enumerated in the Flore de Kouy-Tchéou under *S. parviflora*, but only no. 3415 bears the name *S. parviflora* in Lévillé's handwriting, while no. 3919 is labeled *Celastrus* with an apparently unpublished specific epithet.

**Sabia parviflora** Wall. var. **nitidissima** Lévillé, Fl. Kouy-Tchéou, 379 (1915).

*Celastrus Esquirolii* Lévillé in Fedde, Rep. Spec. Nov. XIII. 262 (1914).

CHINA. K w e i c h o u : without locality, *J. Esquirol*, Aug. 9, 1905 (holotype of *C. Esquirolii* and *Sabia parviflora* var. *nitidissima*; merotype in A. A.).

The variety differs from the type in the generally larger leaves, 10-12 (-15) cm. long and 2.5-4 cm. broad, ovate-oblong to lanceolate-oblong, lustrous and bright green above, lighter green and less lustrous beneath. It resembles Rock's no. 2202 from Burma, but is more lustrous.

**Meliosma Oldhami** Miquel in Ann. Mus. Bot. Lugd.-Bat. III. 94 (1867); Prol. Fl. Jap. 258 (1867).

*Rhus Bofillii* Lévillé in Mem. Acad. Ci. Barcelona, XII. 562 (Cat. Pl. Kiang-Sou, 22) (1916). — **Synon. nov.**

CHINA. K i a n g s u : Suo-se, Tcha-Tchan, *d'Argy* (1846-66) (holotype of *Rhus Bofillii*; fragments in A. A.).

The specimen cited above represents typical *M. Oldhamii* not *M. sinensis* Nakai which is probably best considered a glabrous or glabrescent variety of the former.

#### RHAMNACEAE

**Zizyphus mauritiana** Lamarck, Encycl. Méth. III. 318 (1789).

*Zizyphus jujuba* (L.) Lamarck, Encycl. Méth. III. 318 (1789). — Lévillé, Cat. Pl. Yun-Nan, 228 (1917). — Non Miller (1768).

*Paliurus Mairei* Lévillé in Fedde, Rep. Spec. Nov. XII. 535 (1913); Cat. Pl. Yun-Nan, 227 (1917). — **Synon. nov.**

CHINA. Y u n n a n : brousse, rives du fleuve Bleu, alt. 400 m., *E. E. Maire*, July 1912 (holotype of *Paliurus Mairei*; photo. in A. A.).

**Berchemia Giraldiana** Schneider, Ill. Handb. Laubholzk. II. 263,

fig. 182 m-n, 183 k (1909); in Sargent, Pl. Wilson. II. 213 (1914). — Léveillé, Cat. Pl. Yun-Nan, 227 (1917).

*Microrhamnus Mairei* Léveillé in Bull. Géog. Bot. xxv. 26 (1915); Cat. Pl. Yun-Nan, 227 (1917); pro parte. — **Synon. nov.**

? *Microrhamnus Franchetiana* Léveillé, l. c. (1915); l. c. (1917); Cat. Pl. Seu-Tchouan, 152, pl. 57 (1918), Mscr.; pro parte, quoad ramum fructiferum.

CHINA. Y u n n a n : brousse des coteaux à Tong-tchouan, alt. 2550 m., *E. E. Maire*, May 1912 "arbuste grimpant, feuilles caduques; rameaux long de 2 à 3 m." (syntype of *Microrhamnus Mairei*; merotype in A. A.); brousse des mont. à Siao-ou-long, alt. 2600 m., *E. E. Maire*, June 1912 "arbuste grimpant à long rameaux" (fruiting branch of holotype of *Microrhamnus Franchetiana*; photo. in A. A.).

Both species of *Microrhamnus* cited above are mixtures; one of the specimens cited under *M. Mairei* apparently belongs here, the other to the following species. The specimen of *M. Franchetiana* consists of a flowering branch and of a leafless fruiting branch, the former represents *Tripterygium hypoglaucum* (Lévl.) Hutch. while the fruiting branch, judging from the shape of the inflorescence belongs here, or possibly to *B. floribunda* Wall.

**Berchemia pycnantha** C. Schneider in Sargent, Pl. Wilson. II. 215 (1914).

*Microrhamnus Mairei* Léveillé in Bull. Géog. Bot. xxv. 26 (1915); Cat. Pl. Yun-Nan, 227 (1917); pro parte. — **Synon. nov.**

CHINA. Y u n n a n : brousse des collines à Kiao-me-ti, alt. 3100 m., *E. E. Maire*, May 1913 "arbuste grimpant, long rameaux de 2 à 3 m., fl. blanches, baies noires" (syntype of *Microrhamnus Mairei*; merotype in A. A.).

**Rhamnella Martini** (Lévl.) Schneider in Sargent, Pl. Wilson. II. 225 (1914) "Martinii." — Léveillé in Fl. Kouy-Tchéou, 341 (1915); Cat. Pl. Yun-Nan, 227 (1917).

*Rhamnus Martini* Léveillé in Fedde, Rep. Spec. Nov. x. 473 (1912).

*Microrhamnus Cavaleriei* Léveillé in Fedde, Rep. Spec. Nov. XII. 535 (1913); Fl. Kouy-Tchéou, 341 (1915). — **Synon. nov.**

*Rhamnus yunnanensis* Heppeler in Arch. Pharm. CCLXVI. (Ber. Deutsch. Pharm. Ges. xxviii.) 167 (March 1928), nomen; in Notizbl. Bot. Gart. Mus. Berlin, x. 343 (June 1928). — **Synon. nov.**

CHINA. H u p e h : Chanyang, *E. H. Wilson*, Veitch Exp. no. 1990, April 1901 (semiscandent shrub, 20 ft.). K w e i c h o u : environs de Gan-pin, rochers au dessus de Ta-tong, *L. Martin* in hb. *Bodinier*, no. 2299, May 23, 1898 "arbuste, fl. verdâtres" (holotype of

*Rhamnus Martini*; merotype in A. A.); Tsin-gai, bois, *J. Cavalerie*, no. 1152, July 15, 1903, "petit arbre" (holotype of *Microrhamnus Cavaleriei*; merotype in A. A.); in fruticetis aridis prope oppidum Huangtsauba, alt. 1400 m., *Handel-Mazzetti*, no. 10289, June 15, 1917. Y u n n a n : Mengtze mountains alt. 7000 ft., *A. Henry*, no. 10929 (shrub 4-6 ft., fl. green); in rupestribus calcareis in monte Tschangtschuan, distr. Yunnan-fu, alt. 2200 m., *O. Schoch*, no. 136 "arbuscula" (holotype of *Rhamnus yunnanensis* in Berlin Mus.; photo. and isotype in A. A.).

**Rhamnella rubrinervis** (Lévl.), comb. nov.

*Embelia rubrinervis* Léveillé in Fedde, Rep. Spec. Nov. x. 374 (1912); Fl. Kouy-Tchéou, 285 (1914).

*Rhamnella hainanensis* Merrill in Philipp. Jour. Sci. XXI. 349 (1922). — **Synon. nov.**

CHINA. K w e i c h o u : without locality, *J. Esquirol*, no. 729 (holotype of *Embelia rubrinervis*; photo. in A. A.); hauteurs de Tongkai, *J. Esquirol*, no. 3028, July 25, 1911, "fl. vertes" (cited in Fl. Kouy-Tchéou; photo. in A. A.). H a i n a n : Five Finger Mt., Hop-lotsum, *F. A. McClure*, no. 8358, Dec. 6, 1921 (holotype of *Rhamnella hainanensis*; isotype in A. A.).

The Kweichou specimens are in flower, while the Hainan specimen is in fruit, but in their vegetative characters the specimens agree exactly except that the dark reddish color of the veins of the under side of the leaves is lacking on the Hainan specimen; it is apparently more prominent on younger leaves. Also the transverse trabecular veinlets are not quite as conspicuous as in the Kweichou specimens. In all specimens the petioles are minutely puberulous, a character not mentioned by Merrill. The floral characters are not different from those of *Rhamnella franguloides* (Maxim.) Weberb. as figured by Maximowicz under *Microrhamnus franguloides* Maxim. (in Mém. Acad. Sci. St. Pétersb. sér. 7, x. no. 11, t. fig. 15-22. 1866) and by Schneider (Ill. Handb. Laubholzk. II. 262, fig. 183 h-l. 1909). The flowers appear in fascicles of 3-7; occasionally two fascicles are borne on short axillary branchlets 5-10 mm. long or sometimes elongated axillary branchlets bear fascicles in the axils of small leaves, resembling in this respect *Rhamnus Esquirolii* Lévl. and *Rh. napalensis* Wall. The petals of *Rh. rubrinervis* are emarginate and the sepals bear on the inside the lamella-like midrib indicated in Schneider's figure, but not shown by Maximowicz.

**Sageretia rugosa** Hance in Jour. Bot. XVI. 9 (1878). — Schneider in Sargent, Pl. Wilson. II. 227 (1914).

*Quercus Dunniana* Léveillé in Fedde, Rep. Spec. Nov. XII. 363 (1913). — **Synon. nov.**

CHINA. K w e i c h o u : without locality, *J. Cavalerie* (holotype of *Quercus Dunniana*; photo. in A. A.).

*Quercus Dunniana* was first identified with *Sageretia rugosa* by W. S. Evans according to a note on the label of the type specimen, but the identification was not published. *Quercus Dunniana* does not appear under *Quercus* in the Flore de Kouy-Tchéou and probably was referred by Lévillé to some other plant.

**Sageretia theezans** (L.) Brongniart in Ann. Sci. Nat. x. 360 (Mém. Fam. Rhamn. 53) (1826).

*Berchemia Chaneti* Lévillé in Fedde, Rep. Spec. Nov. x. 433 (1912). — **Synon. nov.**

*Sageretia Chanetii* Schneider in Sargent, Pl. Wilson. II. 228 (1914).

CHINA. H o p e i : montagnes de Ping-chan, *L. Chanet*, no. 232, June 15, 1908 "arbuste épineux" (holotype of *Berchemia Chaneti*; merotype in A. A.).

*Berchemia Chaneti* was referred to *Sageretia* by C. Schneider and doubtfully enumerated as a new species under *S. theezans*. It does not seem to me specifically distinct from that variable species.

**Sageretia Henryi** Drummond & Sprague in Kew Bull. Misc. Inform. 1908, p. 14; 1914, p. 175. — Schneider in Sargent, Pl. Wilson. II. 623 (1916).

*Berchemia Cavaleriei* Lévillé in Fedde, Rep. Spec. Nov. x. 433 (1912).

*Sageretia Cavaleriei* Schneider in Sargent, Pl. Wilson. II. 228 (1914). — Lévillé, Fl. Kouy-Tchéou, 343 (1915).

CHINA. K w e i c h o u : Keou-tchang, Kouy-tin, *J. Cavalerie*, no. 725, Nov. 23, 1902 (holotype of *Berchemia Cavaleriei*; photo. in A. A.).

**Rhamnus crenatus** Siebold & Zuccarini in Abh. Akad. Muench. IV. pt. II. 146 (Fl. Jap. Fam. Nat. I. 38) (1845). — Schneider in Sargent, Pl. Wilson. II. 232, 244 (1914). — Lévillé, Cat. Pl. Yun-Nan, 228 (1917).

*Rhamnus pseudo-frangula* Lévillé in Fedde, Rep. Spec. Nov. x. 473 (1912); Fl. Kouy-Tchéou, 343 (1915). — Schneider in Sargent, Pl. Wilson. II. 245 (1914). — **Synon. nov.**

*Celastrus Esquirolianus* Lévillé in Fl. Kouy-Tchéou, 69 (1914). — **Synon. nov.**

*Celastrus Kouytchensis* Lévillé in Fedde, Rep. Spec. Nov. XIII. 263 (1914). — **Synon. nov.**

CHINA. K w e i c h o u : environs de Kouy-yang, mont du Colège, le long de l'aqueduc (Ye-mou-kiang-tse), *E. Bodinier*, no. 1620, June 10, 1897 "fleurs jaunes-verdâtres" (holotype of *Rh. pseudo-frangula*; photo. in A. A.); chemin de Tong-tcheou, rochers, alt. 1000

m., *J. Esquirol*, no. 3612 (cited in Fl. Kouy-Tchéou as 3618), June 1912 "frutescent, ne s'élève guère qu'à 2 m., mais ses branches s'étendent" (holotype of *Celastrus Esquirolianus*; photo. in A. A.); Pin-fa, Majo, *J. Cavalerie*, no. 3349 (holotype of *Celastrus Kouytchensis*; photo. in A. A.).

Schneider speaks (l. c.) of *Rh. pseudo-frangula* as a species closely related to *Rh. crenatus* or perhaps a variety and gives a full description of it based on Lévillé's specimen. I cannot see any difference from the variable *Rh. crenatus*.

**Rhamnus heterophyllus** Oliver in Hooker's Icon. xviii. t. 1759 (1888). — Schneider in Sargent, Pl. Wilson. II. 232 (1914). — Lévillé, Fl. Kouy-Tchéou, 342 (1915).

*Rhamnus Cavaleriei* Lévillé in Fedde, Rep. Spec. Nov. IX. 326 (1910).

CHINA. K w e i c h o u : près Pin-yue, *J. Cavalerie*, no. 2477, Aug. 1, 1905, "arbuste de 1 m. 50" (holotype of *Rh. Cavaleriei*; photo. in A. A.).

Schneider first identified *Rh. Cavaleriei* with *Rh. heterophyllus* and Lévillé cites in his Flore de Kouy-Tchéou the specimen under *Rh. heterophyllus* without citing a synonym.

**Rhamnus Esquirolii** Lévillé in Fedde, Rep. Spec. Nov. x. 473 (1912); Fl. Kouy-Tchéou, 342 (1915). — Schneider, in Sargent, Pl. Wilson. II. 233 (1914).

*Celastrus? Lyi* Lévillé in Fedde, Rep. Spec. Nov. XIII. 264 (1914). — **Synon. nov.**

*Sageretia Bodinieri* Lévillé, Fl. Kouy-Tchéou, 343 (1915).

CHINA. K w e i c h o u : Pin-fa, sous bois, *J. Esquirol*, no. 392, June 15, 1905 (holotype of *Rh. Esquirolii*; photo. in A. A.); environs de Kouy-yang, mont du Collège, *E. Bodinier*, June 3, 1898 (holotype of *Celastrus Lyi* and *Sageretia Bodinieri*; photo. in A. A.).

Schneider gives (l. c.) a complete description of the species. Lévillé cites in his Flore de Kouy-Tchéou *Celastrus Lyi* as a synonym of the new name *Sageretia Bodinieri* and enumerates besides Bodinier's specimen Esquirol's no. 3771 "route de Tong-tchéou, 1200 m., 1912" which I have not seen.

**Rhamnus napalensis** (Wall.) M. A. Lawson in Hooker f., Fl. Brit. India, I. 640 (1875), "*nipalensis*."

*Ceanothus napalensis* Wallich in Roxburgh, Fl. Ind. ed. Carey, II. 375, 575 (1824).

*Rhamnus paniculiflorus* Schneider in Sargent, Pl. Wilson. II. 233 (March 1914). — **Synon. nov.**

*Celastrus tristis* Léveillé in Fedde, Rep. Spec. Nov. XIII. 263 (May 1914). — **Synon. nov.**

CHINA. K w e i c h o u : without locality, *J. Esquirol*, (holotype [2 sheets] of *Celastrus tristis*, photos. in A. A.).

I am unable to separate *Rh. paniculiflorus* Schneid. from *Rh. napalensis* M. Laws. The distinguishing characters given by Schneider do not seem to hold; I find verrucose branches in a specimen from Assam (*L. F. Ruse*, no. 58a) and in a specimen from Sumatra (*H. S. Yates*, no. 725); and the branching of the panicle varies so greatly in the 28 specimens before me that no line can be drawn. The species has a very wide distribution; it occurs throughout China except the northern provinces and extends through India and Indochina to Malaysia.

The specific epithet was published originally by Wallich (l. c.) under *Ceanothus* as "*napalansis*," but this spelling was corrected in the same volume on p. 575 to "*napalensis*" which must be accepted as the correct spelling of the name, though most later authors, following Lawson spelled it "*nipalensis*" or sometimes "*nepalensis*."

**Rhamnus Bodinieri** Léveillé in Fedde, Rep. Spec. Nov. x. 473 (1912); Fl. Kouy-Tchéou, 342 (1915). — Schneider in Sargent, Pl. Wilson. II. 246 (1914).

CHINA. K w e i c h o u : environs de Tsin-gay, rochers au bord de la rivière à Ché-tiou-tchay, *E. Bodinier*, no. 2657, June 27, 1899 (holotype; merotype in A. A.).

Schneider (l. c.) gives a complete description of the species partly based on additional material collected by Henry in Yunnan (nos. 10814 and 10814a).

**Rhamnus Blinii** (Lévl.), comb. nov.

*Maesa Blinii* Léveillé in Fedde, Rep. Spec. Nov. x. 376 (1912); Fl. Kouy-Tchéou, 286 (1914).

CHINA. K w e i c h o u : Ma-jo, *J. Cavalerie*, no. 3103, July 24, 1907 (holotype of *Maesa Blinii*; merotype in A. A.). S z e c h u a n : Kuan-hsien, alt. 3500-4000 ft., *W. P. Fang*, no. 2243, July 15, 1928 (shrub 4 m.).

*Maesa Blinii* is apparently conspecific with *Rhamnus Sargentianus* Schneid., but differs in several minor characters, so that the latter is probably best considered a variety of the former, the specific epithet "*Blinii*" having priority. Cavalerie's no. 3103 differs from *Rh. Sargentianus* chiefly in the quite glabrous, chartaceous and sharply serrulate leaves, distinctly reticulate beneath, with fewer, 10-12, pairs of veins, while in typical *Rh. Sargentianus* Schneid. the leaves are pilose at least on the veins beneath, the serration is minute and the 10-18

pairs of veins are connected by conspicuous trabecular veinlets without visible reticulation between. Fang's no. 2243 approaches the typical form, the veins are more numerous, the trabecular veinlets are more prominent and the serration is less conspicuous; it resembles W. Y. Chun's no. 4023 from Hupeh which, however, is pubescent on the veins and partly on the veinlets beneath and the veins are closer.<sup>1</sup>

**Rhamnus serpyllifolius** Léveillé in Fedde, Rep. Spec. Nov. XII. 282 (1913), "*serpyllifolia*"; Cat. Pl. Yun-Nan, 228 (1917) "*serpillifolius*."

CHINA. Y u n n a n : rochers arides de Pan-pien-kai, 2550 m., E. E. Maire, May 1912 "arbrisseau épineux rampant, appliquées sur les rochers, fl. blanches" (holotype; merotype in A. A.).

Descriptioni adde: frutex glaberrimus, spinosus, ramulis brevibus suboppositis vel alternis; folia breviter petiolata, coriacea, obovata vel obovato-oblonga, 4-10 mm. longa et 2.5-4 mm. lata, apice rotundata vel leviter emarginata, basi cuneata, integra vel apicem versus sparsissime minute et indistincte denticulata, supra nitida, intense viridia, subtus pallidiora, costa et venis indistinctis; flores (deflorati) solitarii, breviter pedicellati pedicello ca. 1 mm. longo, 4-meri, sepalis triangulari-ovatis, acutiusculis, ca. 1 mm. longis.

This is a very distinct species on account of its very small coriaceous entire or nearly entire leaves. The collector notes the flowers as white, but this may be a mistake, for the few flowers on the specimen show neither petals nor stamens. The species seems best placed near *Rh. Rosthornii* Pritz., *Rh. leptacanthus* Schneid. and *Rh. Leveilleanus* Fedde but these have membranous, distinctly denticulate and generally larger leaves. According to Heppeler's disposition of the species (Beitr. Syst. Rhamnus in Arch. der Pharmazie, CCLVI. 152-173. 1928) it should be placed into his series Coriaceae, though he refers *Rh. Rosthornii* and *Rh. Leveilleanus* to the series Parvifoliae.

**Rhamnus Taqueti** Léveillé in herb. apud Schneider in Sargent, Pl. Wilson. II. 248 (1914).

<sup>1</sup>**Rhamnus Blinii** var. **Sargentianus** (Schneid.), stat. nov.

*Rhamnus Sargentianus* Schneider in Sargent, Pl. Wilson. II. 235 (1914).

CHINA. W e s t e r n S z e c h u a n : Wa-shan, E. H. Wilson, no. 862, June and Sept. 1908 (holotype); same locality, E. H. Wilson, Veitch Exp. no. 3339a, June 1903 (paratype); Mupin, E. H. Wilson, no. 862a, June 1908 (paratype); without precise locality, E. H. Wilson, Veitch Exp. no. 3339, May 1904 (paratype). W e s t e r n H u p e h : 6 li from Hsien-tien-tze, alt. 6500 ft., W. Y. Chun, no. 4023, Aug. 23, 1922 (tree, 6 m.). Y u n n a n : Chien-chuan-Mekong divide, lat. 26° 30-36' N., long. 99° 40' E., alt. 9-10000 ft., G. Forrest, nos. 21482 and 21976, July and Aug. 1922; without precise locality, G. Forrest, no. 26784.

The variety has apparently a much wider distribution than the typical form and probably must be considered the phylogenetic type.



*Prunus Taqueti* Léveillé in Fedde, Rep. Spec. Nov. vii. 197 (1909).

KOREA. Q u e l p a e r t : Hallisan, *E. Taquet*, no. 104, Sept. 1907 (syntype of *Prunus Taqueti*; photo. in A. A.); same locality, *U. Faurie*, no. 1870, July 1907 (syntype of *Prunus Taqueti*; isotype in A. A.).

*Prunus Taqueti* was first recognized by E. Koehne as a species of *Rhamnus* according to a note on the sheet of Taquet's no. 104 and a reference in Sargent, Pl. Wilson. ii. 276 (1912).

**Rhamnus Leveilleanus** Fedde, Rep. Spec. Nov. x. 272 (1911). — Schneider in Sargent, Pl. Wilson. ii. 248 (1914). — Léveillé, Fl. Kouy-Tchéou, 243 (1915).

*Rhamnus Cavaleriei* Léveillé in Fedde, Rep. Spec. Nov. x. 148 (1911); nec Léveillé, op. cit. ix. 226 (1910).

CHINA. K w e i c h o u : Lo-fou, *J. Cavalerie*, no. 3348, April 1907 (holotype of *Rh. Cavaleriei*; merotype in A. A.); environs de Kouy-yang, *E. Bodinier*, no. 2656, June 15, 1898 (cited in Fl. Kouy-Tchéou; dupl. in A. A.).

**Rhamnus leptophyllus** Schneider in Notizbl. Bot. Gard. Berlin, v. 77 (1908); in Sargent, Pl. Wilson. ii. 239 (1914). — Léveillé, Cat. Pl. Yun-Nan, 228 (1917).

*Rhamnus pruniformis* Léveillé in Fedde, Rep. Spec. Nov. xii. 534 (1913); Cat. Pl. Yun-Nan, 228 (1917). — **Synon. nov.**

CHINA. Y u n n a n : Kin-tchong-chan, 2550 m., *E. E. Maire*, April 1912, "arbuste épineux buissonnant, haut 1.50 m., fl. jaunes, abondantes" (holotype of *Rh. pruniformis*; merotype in A. A.).

In the Herbarium Léveillé there is another specimen (merotype in A. A.) from the same locality with very young leaves which seems to be referable to *Rh. Rosthornii* Pritz.

**Rhamnus Schneideri** Léveillé & Vaniot in Fedde, Rep. Spec. Nov. vi. 265 (1908). — Schneider in Sargent, Pl. Wilson. ii. 250 (1914).

KOREA: Nai-piang, *U. Faurie*, no. 234, July 1901 (holotype; photo. in A. A.).

**Rhamnus hamatidens** Léveillé in Fedde, Rep. Spec. Nov. x. 473 (1912); Fl. Kouy-Tchéou, 342 (1915). — Schneider in Sargent, Pl. Wilson. ii. 252 (1914).

CHINA. K w e i c h o u : Pin-fa, *J. Cavalerie*, no. 992, April 15, 1903, "arbuste, fl. vertes" (holotype; photo. in A. A.).

**Hovenia dulcis** Thunberg, Fl. Jap. 101 (1784). — Léveillé, Fl. Kouy-Tchéou, 340 (1915); Cat. Pl. Yun-Nan, 227 (1917).

*Zizyphus Esquirolii* Léveillé in Fedde, Rep. Spec. Nov. x. 148 (1911); Fl. Kouy-Tchéou, 343 (1915). — **Synon. nov.**

CHINA. K w e i c h o u : without locality, *J. Esquirol*, no. 861

(holotype of *Zizyphus Esquirolii*; merotype in A. A.).

**Gouania javanica** Miquel, Fl. Ind. Bat. I. pt. 1, p. 649 (1855). — Léveillé, Cat. Pl. Yun-Nan, 227 (1917). — Exell in Sunyatsenia, I. 93 (1933).

*Terminalia Kouytchensis* Léveillé Cat. Pl. Yun-Nan, 35 (1915), sub *T. Mairei*.

CHINA. K w e i c h o u : Lo-fou, *J. Cavalerie*, no. 3457 (holotype of *Terminalia Kouytchensis*; merotype in A. A.).

*Terminalia Kouytchensis* was only incidentally mentioned by Léveillé in the description of his *Terminalia Mairei* (l. c.): "folia . . . basi brevissime attenuata nec cordata (ex quo a *T. Kouytchensis* Lévl. diagnositur)". *Terminalia Mairei* is according to Exell (l. c. 87) identical with *Combretum Wallichii* DC. *Terminalia Kouytchensis* is not enumerated by Léveillé in his Flore de Kouy-Tchéou; though *Terminalia* appears in the key of genera under Combretaceae (p. 74), no species is listed. Exell (l. c.) first published it as a synonym of *Gouania javanica* Miq., to which I had it already referred in this herbarium.

#### VITACEAE

**Vitis flexuosa** Thbg. var. **parvifolia** (Roxb.) Gagnepain in Sargent, Pl. Wilson. I. 103 (1911). — Léveillé, Cat. Pl. Yun-Nan, 8, (1915).

*Vitis Cavaleriei* Léveillé & Vaniot in Bull. Soc. Agr. Sci. Arts Sarthe, XL.<sup>1</sup> 36 (1905); in Fedde, Rep. Spec. Nov. II. 158 (1906).

*Vitis flexuosa* Léveillé, Fl. Kouy-Tchéou, 27 (1914), pro parte, vix Thunb.

CHINA. K w e i c h o u : Kouy-yang, mont du Collège, *J. Cavalerie*, April 25, 1898 (holotype of *Vitis Cavaleriei*; photo. in A. A.).

*Vitis Cavaleriei* was referred by Léveillé in his Flore de Kouy-Tchéou to *Vitis flexuosa* as a synonym together with *Vitis Marchandii* Lévl. which, however, belongs to the following species.

**Vitis Wilsonae** Veitch apud Gard. Chron. ser. 3, XLVI. 236. fig. 101 (1909). — Rehder in Sargent, Pl. Wilson. III. 428 (1917), pro syn. *V. reticulatae* Gagnep.; in Jour. Arnold Arb. XIII. 339 (1932).

*Vitis reticulata* Pampanini in Nuov. Giorn. Bot. Ital. XVII. 429, fig. 13 (1910); non M. A. Lawson.

*Vitis Marchandii* Léveillé in Fedde, Rep. Spec. Nov. XII. 531 (1913). — **Synon. nov.**

*Vitis flexuosa* Léveillé, Fl. Kouy-Tchéou, 27 (1914), quoad syn. *V. Marchandii*; non Thunb.

<sup>1</sup>In the reprint of Léveillé's Les vignes de la Chine, on the cover of the first fascicle containing the original article and in Fedde's Repertorium the volume number is given as LX. instead of XL.

CHINA. K w e i c h o u : Chouang-chan-po, *J. Esquirol*, no. 3143, May 1911 (syntype of *V. Marchandii*; photo. in A. A.); bois, Gan-chouen, *J. Cavalerie*, no. 3874 (syntype of *V. Marchandii*; photo. in A. A.).

*Vitis Marchandii* was reduced by L veill  in his Flore de Kouy-Tch ou to a synonym of *V. flexuosa*, but it clearly is identical with *V. Wilsonae* Veitch.

There may be some doubt whether *V. Marchandii*, though later than *V. Wilsonae*, should not be considered the correct name for this species, as it was correctly published with a Latin description and based on type specimens, while the name *V. Wilsonae* was only incidentally mentioned, though with a figure of a leaf. As far as the two descriptions go, they are both unsatisfactory and incomplete, and particularly misleading is L veill 's statement "*V. inconstanti* Miq. affinis," while *V. Wilsonae* is much more correctly referred as belonging into the affinity of *V. armata*.

**Vitis Davidi** (Rom. du Caill.) Fo x, Cours Vitic. 44 (1886).

*Vitis prunisapida* L veill  & Vaniot in Fedde, Rep. Spec. Nov. III. 350 (1907); Fl. Kouy-Tch ou, 28 (1914). — **Synon. nov.**

CHINA. K w e i c h o u : Touan-po, *J. Cavalerie*, no. 2488, Aug. 13, 1905, "vigne   gros raisins, peu aqueux et   gout de pruneau" (holotype of *V. prunisapida*; photo. in A. A.).

**Vitis Thunbergii** Sieb. & Zucc. var. **adstricta** (Hance) Gagnepain in Sargent, Pl. Wilson. II. 105 (1911). — L veill , Cat. Pl. Yun-Nan, 8 (1915).

*Vitis flexuosa* Thunb. var. *Mairei* L veill  in Fedde, Rep. Spec. Nov. VII. 340 (1909); Cat. Pl. Yun-Nan, 8 (1915). — **Synon. nov.**

CHINA. Y u n n a n : montagnes, *E. E. Maire*, no. 415, May 1906, (holotype of *V. flexuosa* var. *Mairei* in herb. Bonati, photo. in A. A.; merotype in herb. L veill ).

L veill  in his Catalogue des plantes du Yun-Nan gives for *V. flexuosa* var. *Mairei* the author citation "L vl. pr. sp. in Fedde, Rep. VII. 338, but this is apparently a mistake; *Vitis Mairei* on that page is partly *Cayratia oligocarpa* var. *glabra* Gagnep. and partly *Tetrastigma serrulatum* (Roxb.) Planch., while the variety appears on p. 340. The actual type of the variety seems to be the specimen in the Herb. Bonati, now in the herbarium of the University of California; the specimen in the L veill  herbarium is only a fragment.

**Tetrastigma Hemsleyanum** Diels & Gilg in Bot. Jahrb. XXIX. 463 (1900). — Gagnepain in Lecomte, Not. Syst. I. 317 (1911).

*Vitis Labordei* L veill  in Bull. Soc. Agric. Sci. Arts. Sarthe, XL. 40

(1905); in Fedde, Rep. Spec. Nov. II. 158 (1906); Fl. Kouy-Tchéou, 27 (1914). — **Synon. nov.**

*Vitis Esquirolii* Léveillé & Vaniot in Fedde, Rep. Spec. Nov. III. 20 (1906); Fl. Kouy-Tchéou, 27 (1914); Cat. Pl. Yun-Nan, 8 (1915). — **Synon. nov.**

CHINA. K w e i c h o u : environs de Kouang-chouen, bois de Ma-yan-chan, *J. Laborde*, no. 2695, Aug. 27, 1899 (holotype of *Vitis Labordei*; photo. in A. A.); Pin-fa, *J. Cavalerie*, no. 1051, June 11, 1903 "fl. blanches" (holotype of *Vitis Esquirolii*; merotype in A. A.).

It is not without hesitation that I refer *Vitis Labordei* as a synonym to *T. Hemsleyanum*, but I cannot see the slightest difference in the leaves of both species; also the inflorescence seems to be the same, though the type of *T. Hemsleyanum* is in flower, while that of *Vitis Labordei* is in fruit and has the secondary axes longer. Gagnepain (l. c.) describes the fruit of *T. Hemsleyanum* from a specimen collected by Farges in eastern Szechuan as being globose with two furrowed-ruminate seeds, while the fruit of *V. Labordei* is pyriform with one seed which has two deep furrows on the ventral side, but the shape of the fruit would change with the number of seeds which is variable in most species.

In the Flore de Kouy-Tchéou Léveillé enumerated under *Vitis Esquirolii* another specimen, *J. Cavalerie*, no. 2471, July 26, 1905, which according to a duplicate before me belongs to *Cayratia oligocarpa* (Lévl. & Vant.) var. *glabra* Gagnep.

**Tetrastigma serrulatum** (Roxb.) Planchon in de Candolle, Monog. Phaner. v. 432 (1887). — Gagnepain in Lecomte, Not. Syst. I. 322 (1911).

*Vitis Mairei* Léveillé in Fedde, Rep. Spec. Nov. VII. 338 (1909), pro parte, quoad no. 412. — **Synon. nov.**

*Vitis flexuosa* Thbg. var. *Mairei* pr. sp. Léveillé, Cat. Pl. Yun-Nan, 8 (1915), errore.

CHINA. Y u n n a n : fôrets des montagnes, *E. E. Maire*, no. 412, May 1904 "tiges périssantes tous les ans" (syntype of *Vitis Mairei* in hb. Bonati; photo. in A. A.).

Léveillé cites under *V. Mairei* two numbers 412 and 414 which I have seen in the herbarium Bonati, now in the herbarium of the University of California, with the name *Vitis Mairei* sp. nov. in Léveillé's handwriting. Whether there are duplicates in the Léveillé herbarium I do not know. Maire's no. 414 is *Cayratia oligocarpa* (Lévl.) var. *glabra* Gagnep.

In his Catalogue des plantes de Yun-Nan Léveillé cites under *Vitis flexuosa* var. *Mairei* Lévl. pr. sp. the reference to *V. Mairei*, apparently

confusing it with the plant described under the former name on page 340, which is identical with *Vitis Thunbergii* S. & Z. var. *adstricta* (Hance) Gagnep.

In 1912 Lévillé used the name *V. Mairei* a second time for an entirely different plant belonging to the Cucurbitaceae (see p. 27).

**Tetrastigma obtectum** (Wall.) Planch. var.  $\beta$  **glabrum** Gagnepain in Lecomte, Not. Syst. I. 323 (1911).

*Vitis umbellata* Hemsley in Jour. Linn. Soc. Bot. xxv. 137 (1886). — Lévillé in Bull. Agric. Sci. Arts Sarthe, XL. 45 (1905).

*Vitis Potentilla* Lév. & Vant. var. *glabra* Lévillé in Bull. Agr. Sci. Sarthe, XL. 43 (1905); in Fedde, Rep. Spec. Nov. II. 160 (1906).

*Vitis obtecta* Wall. var. *Potentilla* f. *glabra* (Lév.) Lévillé, Fl. Kouy-Tchéou, 28 (1914).

*Vitis obtecta* Wall. var. *glabra* (Lév.) Lévillé, Cat. Pl. Yun-Nan, 8 (1915).

CHINA. K w e i c h o u : environs de Gan-pin, sur les rochers, aux Grandes Rocailles, *L. Martin & E. Bodinier*, no. 1879, p. p., Sept. 26, 1897 (syntype of *Vitis Potentilla* var. *glabra*, ex Lévillé); environs de Gan-pin, rochers à la depression, grotte; environs de Ou-la-gay, sur les rochers, *L. Martin & E. Bodinier*, nos. 2191, 2191bis, p. p., (syntype of *V. Potentilla* var. *glabra*, p. p.; photo. in A. A.); Pin-fa, *J. Cavalerie*, nos. 1331, 1332, 3253, May & July 1902 and May 1908 (cited under *V. obtecta* var. *Potentilla* f. *glabra* in Fl. Kouy-Tchéou; photos. in A. A.).

In his original publication of *Vitis Potentilla* and var. *glabra*, Lévillé cites the types in one paragraph at the end without indicating which specimens represent the type of the species and which that of the variety, but the fact that both type numbers 1879 and 2191 consist each of both forms, may be his reason for not separating them in his citations. Of no. 1879 I have seen only var. *pilosa*, and no. 2191 he separates in Flore de Kouy-tchéou into no. 2191 and no. 2191bis.

*Vitis umbellata* Hemsl. = *Tetrastigma umbellatum* (Hemsl.) Nakai, of which I have seen the type in Kew, does not seem to be different from *T. obtectum* var. *glabrum*; Nakai refers also *Vitis arisanensis* Hay. as a synonym to *T. umbellatum* (in Tokyo Bot. Mag. xxxvi, 69. 1922). Lévillé (l. c.) cites in 1905 Cavalerie nos. 1331 and 1332 under *Vitis umbellata* Hemsl., but in his Flore de Kouy-Tchéou he enumerates them under *V. obtecta* var. *Potentilla* f. *glabra*. Gagnepain in his Essai de classification du genre *Tetrastigma* (in Lecomte, Not. Syst. I. 306-326. 1911) does not mention *Vitis umbellata* Hemsl. at all.

**Tetrastigma obtectum** var. **Potentilla** (Lév. & Vant.) Gagnepain in Lecomte, Not. Syst. I. 323 (1911).

*Vitis Potentilla* Léveillé & Vaniot in Bull. Agric. Sci. Arts Sarthe, XL. 43 (1905); in Fedde, Rep. Spec. Nov. II. 159 (1906).

*Vitis obtecta* var. *Potentilla* f. *pilosa* (Pl.) Léveillé, Fl. Kouy-Tchéou, 28 (1914); vix *T. obtectum* var. *pilosum* Pl. apud Gagnep.

*Vitis obtecta* Wall. var. *Potentilla* (Lévl. & Vant.) Léveillé, Cat. Pl. Yun-Nan, 9 (1915).

CHINA. K w e i c h o u : environs de Gan-pin, sur les rochers, aux Grandes Rocailles, *L. Martin & E. Bodinier*, no. 1879, p. p., Sept. 26, 1897 (syntype of *Vitis Potentilla*; photo. in A. A.); environs de Gan-pin, rochers à la depression, grotte; environs de Ou-la-gay, sur les rochers, *L. Martin* in herb. *E. Bodinier*, no. 2191bis (syntype of *V. Potentilla*; photo. in A. A.).

In his Flore de Kouy-Tchéou Léveillé places *Vitis Potentilla* under *V. obtecta* var. *Potentilla* f. *pilosa*, but in his Cat. Pl. Yun-Nan he separates var. *pilosa* and var. *Potentilla* following Gagnepain.

**Parthenocissus himalayana** (Royle) Planch. var. **rubrifolia** (Lévl. & Vant.) Gagnepain in Sargent, Pl. Wilson. I. 101 (1911).

*Vitis rubrifolia* Léveillé & Vaniot in Bull. Soc. Agric. Sci. Sarthe XL. 44 (1905); in Fedde, Rep. Spec. Nov. II. 101 (1911).

*Vitis Delavayana* Léveillé, Fl. Kouy-Tchéou, 27 (1914), tandem quoad synonym. *V. rubrifolia*; non *V. Delavayana* (Planch.) Franch.

CHINA. K w e i c h o u : environs de Kouy-yang, mont du Collège, gorges de Yang-pa, *E. Bodinier*, no. 2457, p. p., July 20, 1898 "liane ligneuse, pedoncules rouges" (syntype of *Vitis rubrifolia*; photo. in A. A.); mont de Kao-po, sur les rochers, *E. Bodinier*, no. 2457, p. p., Nov. 8, 1899, "pedoncules et feuilles rouges" (syntype of *Vitis rubrifolia*; photo. in A. A.).

*Vitis rubrifolia* was referred in 1911 by Gagnepain as a variety to *Parthenocissus himalayana*, but in 1914 Léveillé made it a synonym of *V. Delavayana*. Whether Cavalerie's specimen from Pin-fa, also cited under *V. Delavayana* belongs to that species or to *P. himalayana* var. *rubrifolia* I do not know.

**Parthenocissus heterophylla** (Bl.) Merrill in Philipp. Jour. Sci. XIII. Bot. 143 (1918).

*Vitis Feddei* Léveillé in Fedde, Rep. Spec. Nov. VII. 231 (1909). —

**Synon. nov.**

CHINA. K w e i c h o u : route de Pin-fa à Tou-yun, *J. Cavalerie*, no. 3347, Aug. 2, 1908 (holotype of *Vitis Feddei*; merotype in A. A.).

*Vitis Feddei* is not mentioned by Léveillé in his Flore de Kouy-Tchéou nor do I find Cavalerie's number cited under any other species of *Vitis*.

**Parthenocissus tricuspidata** (Sieb. & Zucc.) Planchon in De Candolle, Monog. Phaner. v. 452 (1887).

*Vitis Taquetii* Léveillé in Bull. Acad. Intern. Géog. Bot. xx. 11 (1910). — **Synon. nov.**

*Psedera Thunbergii* (Sieb. & Zucc.) Nakai, Fl. Sylv. Kor. xii. 11, pl. 1 (1922).

KOREA. **Q u e l p a e r t**: scandens in muris agrorum Hongno, *E. Taquet*, no. 648, July 1908 (holotype of *V. Taquetii*; isotype in A. A.).

*Vitis Taquetii* was first identified with *P. tricuspidata* by Nakai (l. c.); it represents the juvenile form of *Parthenocissus tricuspidata*; Taquet's no. 648 is sterile, but his no. 5454 also under *V. Taquetii* in the Herb. Léveillé collected August 1911 at the same locality bears small inflorescences. Of the three other specimens before me collected by Faurie July 1908 at the same locality, no. 646 is similar to the type of *V. Taquetii*, no. 647 bears the large three-lobed leaves characteristic for the mature plant, and no. 649 is intermediate; all three have inflorescences with flower-buds.

**Ampelopsis Bodinieri** (Lévl. & Vant.), comb. nov.

*Vitis Bodinieri* Léveillé & Vaniot in Bull. Soc. Agric. Sci. Sarthe, xl. 36 (1915); in Fedde, Rep. Spec. Nov. ii. 157 (1906).

*Vitis heterophylla* Léveillé, Fl. Kouy-Tchéou, 27 (1914), p. p.; vix Thunberg.

*Ampelopsis micans* Rehder in Mitteil. Deutsch. Dendr. Ges. xxi. 188 (1912). — **Synon. nov.**

CHINA. **K w e i c h o u**: environs de Kouy-yang, mont du Collège, haies, rochers, *E. Bodinier*, no. 2291, May 29 and June 16, 1898 "liane ligneuse à long sarments" (syntypes of *Vitis Bodinieri*; photo. of specimen of May 29 in A. A.).

*Vitis Bodinieri* is referred by Léveillé in his Flore de Kouy-Tchéou as a synonym to *V. heterophylla* Thunb. (= *Ampelopsis brevipedunculata* [Maxim.] Koehne), but it apparently is identical with the closely related *A. micans* Rehd., a name over which the specific epithet of *V. Bodinieri* has priority.

**Ampelopsis Bodinieri** var. **cinerea** (Gagnep.), comb. nov.

*Vitis Lyjoannis* Léveillé in Bull. Bot. Soc. France, liv. 369 (1907).

*Ampelopsis heterophylla* var. *cinerea* Gagnepain in Sargent, Pl. Wilson. i. 101 (1911), p. p.

*Ampelopsis micans* var. *cinerea* Rehder in Mitt. Deutsch. Dendr. Ges. xxi. 189 (1912).

*Vitis heterophylla* Léveillé, Fl. Kouy-Tchéou, 27 (1914), p. p.; non Thunberg.

CHINA. **K w e i c h o u**: Pin-uo, Ton-yun, terrains pierreux, *J.*

*Cavalerie*, no. 2478, Aug. 1, 1905 "plante de 2 à 4 metres, assez dressée" (holotype of *Vitis Lyjoannis*; photo. in A. A.).

*Vitis Lyjoannis* was referred as a synonym to *V. heterophylla* by Lévillé (l. c.), but apparently belongs to *A. micans* var. *cinerea*, though it differs from the type of that variety by the slightly or scarcely 3-lobed leaves, but the branch and the leaves beneath are rather densely pubescent.

**Ampelopsis Delavayana** Planchon in De Candolle, Monogr. Phaner. v. 458 (1887).

*Vitis rigida* Lévillé & Vaniot in Bull. Agric. Sci. Sarthe XL. 44 (1905); in Fedde, Rep. Spec. Nov. II. 160 (1906); Fl. Kouy-Tchéou, 28 (1914). — **Synon. nov.**

CHINA. K w e i c h o u : environs de Kouy-yang, mont du Collège, *E. Bodinier*, no. 2402 p. p., May 28, 1898 (syntype of *Vitis rigida*; photo. and merotype in A. A.); haies près de Kien-lin-chan, *E. Bodinier*, no. 2402, p. p., July 7, 1898 (syntype of *V. rigida*, ex Lévillé).

**Ampelopsis Delavayana** var. **Gentiliana** (Lévl. & Vant.), comb. nov.

*Vitis Gentiliana* Lévillé & Vaniot in Bull. Agric. Soc. Sarthe, XL. 38 (1905); in Fedde, Rep. Spec. Nov. II. 158 (1906); Fl. Kouy-Tchéou, 27 (1914).

*Ampelopsis heterophylla* var. *Gentiliana* (Lévl. & Vant.) Gagnepain in Sargent, Pl. Wilson. I. 100 (1911).

CHINA. K w e i c h o u : environs de Kouy-yang, mont du Collège (N.-D. de Liesse), haies, *E. Bodinier*, no. 2301, June 9, 1898, "grande liane sous-ligneuse" (holotype of *Vitis Gentiliana*, merotype in A. A.).

*Vitis Gentiliana* was referred by Gagnepain (l. c.) as a variety to *A. heterophylla* S. & Z. = *A. brevipedunculata* (Maxim.) Koehne, as was also *A. Delavayana*, but they are hardly conspecific with *A. brevipedunculata* which always has undivided though more or less lobed leaves and fruits of a different color. *Vitis Gentiliana* and *A. Delavayana* though quite distinct in their extreme forms are apparently variations of a polymorphous species, since their typical forms are connected by intermediate specimens, as Wilson, no. 604, from Hupeh, Bock & Rosthorn, no. 1540<sup>1</sup> and Fang, no. 473, from Szechuan, Schoch, no. 168, and Rock, no. 6389, from Yunnan. Both forms vary from densely pilose on the veins to quite glabrous. In the shape of the foliage Wilson, no. 2734, is very similar to the type of *Vitis Gentiliana*,

<sup>1</sup>See Jour. Arnold Arb. xiv. 349 (1923).



but the leaves are quite glabrous, while in the latter the veins beneath are densely pilose.

**Ampelopsis aconitifolia** Bge. var. **palmiloba** (Carr.) Rehder in Mitt. Deutsch. Dendr. Ges. XXI. 190 (1912); in Sargent, Pl. Wilson, III. 427 (1917).

*Vitis Dunniana* Léveillé in Fedde, Rep. Spec. Nov. XI. 297 (1912). —

**Synon. nov.**

KOREA: in dumosis Chinnampo, *U. Faurie*, no. 535, Aug. 1906 (holotype of *Vitis Dunniana*; merotype in A. A.).

There are no specimens either of *A. aconitifolia* or of this variety from Korea in this herbarium, nor can I find any records. Faurie's no. 535 is not represented in this herbarium, though we have a good set of his collections.

**Ampelopsis Chaffanjonii** (Lévl.), comb. nov.

*Vitis Chaffanjonii* Léveillé in Bull. Soc. Agric. Sci. Sarthe XL. 37 (1905).

*Leea Dielsii* Léveillé in Fedde, Rep. Spec. Nov. VIII. 58 (1910); Fl. Kouy-Tchéou, 25 (1914). — **Synon. nov.**

*Meliosma? Cavaleriei* Léveillé in Fedde, Rep. Spec. Nov. IX. 457 (1911); Fl. Kouy-Tchéou, 378 (1915). — **Synon. nov.**

*Vitis megaphylla* Léveillé, Fl. Kouy-Tchéou, 28 (1914); nom. nudum. — **Synon. nov.**

*Ampelopsis Watsoniana* Wilson in Jour. Roy. Hort. Soc. XLII. 37 (1916), nom. nud. — Rehder & Wilson in Sargent, Pl. Wilson, III. 427 (1917). — **Synon. nov.**

CHINA. K w e i c h o u : environs de Kouy-yang, mont du Collège, gorges de Yang-pa, *J. Chaffanjon* in herb. *Bodinier*, no. 2386, June 20, 1898 "grande liane sous-ligneuse" (holotype of *Vitis Chaffanjonii*; photo. in A. A.); Tsin-gay, *J. Cavalerie*, no. 1243, Aug. 1903 (holotype of *Leea Dielsii*; photo. in A. A.); Pin-fa, *J. Cavalerie*, no. 1027, June 3, 1903 "fl. vert-jaunes" (holotype of *Meliosma Cavaleriei*; photo. in A. A.); Pin-fa, Kiang-ouang, *J. Cavalerie*, no. 2362, May 25, 1905 (holotype of *Vitis megaphylla*; photo. in A. A.).

The type specimen of *Vitis Chaffanjonii* is enumerated by Léveillé in his Flore de Kouy-Tchéou under *Leea Dielsii* without *V. Chaffanjonii* being cited as a synonym. *Vitis megaphylla* Lévl. is published by Léveillé (l. c.) without description and I was unable to find any previous reference to it. From a pencil note apparently not in Léveillé's handwriting on the type specimen reading "Vitis aff. *V. megaphylla*" I assume that this name is probably a slip of the pen for *V. megalophylla*, and Léveillé took it up by mistake as *V. megaphylla* Lévl. when compiling his Flore de Kouy-Tchéou. The only complete leaf of the type

specimen is from a vigorous shoot and has coarsely serrate unusually large leaflets (up to 11 cm. long).

**Ampelopsis cantoniensis** (Hook. & Arn.) Planchon in De Candolle, Monog. Phaner. v. 460 (1887).

*Vitis multijugata* Lévillé & Vaniot in Bull. Soc. Agric. Sci. Sarthe XL. 41 (1905); in Fedde, Rep. Spec. Nov. II. 159 (1906); Fl. Kouy-Tchéou, 28 (1914). — **Synon. nov.**

*Leea theifera* Lévillé in Fedde, Rep. Spec. Nov. VIII. 58 (1910); Fl. Kouy-Tchéou, 25 (1914). — **Synon. nov.**

CHINA. K w e i c h o u : environs de Tou-chan, *J. Cavalerie*, June-July 1899 (holotype of *Vitis multijugata*; photo. in A. A.); Pin-fa, cataracte au sud-ouest, fourrés, *J. Cavalerie*, no. 243, Aug. 21, 1902, "les Miao-tsè font leur thé avec le fruit mûr violet de cette plante" (holotype of *Leea theifera*; photo. in A. A.).

The two specimens cited above differ considerably in the shape of their leaflets; in the specimen from Tou-chan they are generally ovate and shallowly toothed, while in that from Pin-fa they are oblong-ovate to oblong-lanceolate and coarsely toothed. The latter is apparently referable to var. *grosse-dentata* Hand.-Mazz. (in Anz. Akad. Wiss. Wien, 1922, p. 105 [Pl. Nov. Sin. Forts. 16, p. 43]), which is closely connected with the type by intermediate forms.

**Cayratia oligocarpa** (Lévl. & Vant.) Gagnepain in Lecomte, Not. Syst. I. 348, 359 (1911).

*Vitis oligocarpa* Lévillé & Vaniot in Bull. Soc. Agric. Sci. Sarthe, XL. 41 (1905); in Fedde, Rep. Spec. Nov. II. 159 (1906); Fl. Kouy-Tchéou, 28 (1914); Cat. Pl. Yun-Nan, 8 (1915).

*Columella oligocarpa* (Lévl.) Rehder in Jour. Arnold Arb. II. 177 (1921).

CHINA. K w e i c h o u : environs de Kouy-Yang, C. dans les haies, *E. Bodinier*, no. 2387, June 29, 1908 (holotype of *Vitis oligocarpa* (2 sheets, flowers and fruits); 2 photos. in A. A.).

I have taken up again the generic name *Cayratia* Juss., since *Columellia* Ruiz & Pav. will be proposed and doubtless accepted as a nomen conservandum to prevent the renaming, on account of the priority of *Columella* Lour., of *Columellia* which represents a distinct family. Both names must be regarded as orthographic variants, having been given in honor of the same man.

**Cayratia oligocarpa** var. **glabra** Gagnepain in Lecomte, Not. Syst. I. 360 (1911).

*Vitis Mairei* Lévillé in Fedde Rep. Spec. Nov. VII. 338 (1909), quoad Maire, no. 414. — **Synon. nov.**

CHINA. Y u n n a n : forêts des montagnes, *E. E. Maire*, no. 414,

May 1904 (syntype of *V. Mairei* [in herb. Bonati]; photo. in A. A.).

As in the case of Maire, no. 412 (see under *Tetrastigma serrulatum*), I have seen a specimen of Maire, no. 414, only in the herbarium Bonati. This is apparently the actual type specimen and has the name, *Vitis Mairei* sp. nov., in Lévillé's handwriting.

**Cayratia dichromocarpa** (Lévl.), comb. nov.

*Vitis dichromocarpa* Lévillé in Fedde, Rep. Spec. Nov. III. 350 (1907); Fl. Kouy-Tchéou, 27 (1914).

CHINA. K w e i c h o u : Pin-fa, *J. Cavalerie*, no. 2416, July 19, 1905, "fruit jaune avant complète maturité, devient ensuite noir luisant" (holotype of *Vitis dichromocarpa*; merotype in A. A.).

I have not been able to identify this plant with any described species; it looks quite distinct on account of its large leaflets rather densely covered beneath with gray villous pubescence, the veins being densely pilose; the middle leaflet is oblong, acuminate, about 11 cm. long and 4.5 cm. wide, the lateral ones oval or ovate, about 7 cm. long and 4 cm. wide, acute or obtuse and mucronate, coarsely crenate-dentate. It is perhaps nearest to *C. oligocarpa*, but the peduncle is articulate and bracteoid in the middle; the seeds are similar to those of that species and prominently T-shaped in cross-section.

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Three of the new species of *Vitis* proposed by Lévillé do not belong to the Vitaceae but to the Cucurbitaceae. These are: *Vitis Martini* Lévillé & Vaniot (in Bull. Soc. Agric. Sci. Sarthe, XL. 41. 1905), *Vitis quelpaertensis* Lévillé (in Fedde, Rep. Spec. Nov. x. 351. 1912)<sup>1</sup> and *Vitis Mairei* Lévillé (in op. cit. XI. 299. 1912; not Lévillé 1909) which apparently all belong to the widely distributed and variable *Gynostemma pentaphyllum* (Thunb.) Makino (*G. pedatum* Bl.).

(To be continued)

HERBARIUM, ARNOLD ARBORETUM,  
HARVARD UNIVERSITY.

<sup>1</sup>The holotype of *Vitis quelpaertensis* is Taquet no. 2745, as cited by Lévillé, but in his herbarium this specimen bears only the name *V. Taquetii* in Lévillé's handwriting, a name given by him the year before to *Parthenocissus tricuspidata*.